

**PERIODIC AERATION IN AN ACTIVATED SLUDGE REACTOR  
FOR WASTEWATER TREATMENT**

**ABSTRACT**

5           A method for treating wastewater. The method includes the steps  
of flowing the wastewater in the absence of any additional carbon source  
into a treatment basin in order to form the contents of the treatment basin  
and treat the wastewater, mixing the contents of the treatment basin,  
introducing oxygen into the treatment basin for a first predetermined time  
10   period of from about 10 to about 120 minutes, stopping the introduction of  
oxygen into the treatment basin for a second predetermined time period of  
from about 7.5 to 120 minutes, repeating the steps of introducing oxygen  
into the treatment basin for a first predetermined time period and stopping  
the introduction of oxygen into the treatment basin for a second  
15   predetermined time period a plurality of times, and flowing the treated  
wastewater out of the treatment basin into a clarifier, where treated  
wastewater is separated into clarified liquid effluent and sludge. Also  
provided is a process for reducing the level of nitrogen compounds in  
wastewater.

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